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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/716,622	11/20/2003	Akira Watanabe	Y2238.0054	6336

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DICKSTEIN SHAPIRO LLP
1177 AVENUE OF THE AMERICAS (6TH AVENUE)
NEW YORK, NY 10036-2714

EXAMINER	
HOTELLING, HAROLD A	

ART UNIT	PAPER NUMBER
2164	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/716,622	WATANABE, AKIRA	
	Examiner	Art Unit	
	Harold A. Hotelling	2164	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 August 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1 - 17* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1 - 17* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *20 November 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

The applicant's arguments were filed on August 22, 2007.

The rejections under 35 U.S.C. 102 are maintained.

Response to Arguments

The applicant appears to have presented one argument distinguishing claims 1, 9, and 17 (effective filing date: November 20, 2002) from Li (U.S. Patent number 6,754,662) (effective filing date: August 1, 2000).

The applicants argue on page 7, lines 1 - 2: *Neither search in Li uses the results of the other search "**for searching the search results from said first search processing means . . .**"*

But the applicant has not explained how **for searching the search results from said first search processing means** is not taught by the passage cited in the previous Office Action (Li, column 4, lines 9 – 13).

Status of Claims

Claims 1 – 17 are rejected under 35 U.S.C. 102(e).

35 U.S.C. §102 rejection

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in . . . (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, . . .

Claims 1 – 17 (effective filing date: November 20, 2002) are rejected under 35 U.S.C. 102(e) as anticipated by Li (U.S. Patent number 6,754,662) (effective filing date: August 1, 2000).

With respect to independent claim 1, Li discloses **[a] packet search device that performs packet filter search for an inputted packet** (column 2, lines 13 – 14: "The present invention relates to a method and apparatus for classifying data packets."), **comprising:**

a first search processing means for searching for search conditional statements corresponding to a plurality of information areas included in header information of said packet with a first search method (column 3, last four lines: "flows of traffic requiring different service are identified by information that can be extracted from packet headers such as source and destination IP addresses, . . ."); **and**

a second search processing means for searching the search results of said first search processing means with a second search method that is different from said first search method (column 4, lines 9 – 13: "Cache 108 stores a hash table with entries filled by class of service identifiers (i.e. classIDs) for (generally) the most recently detected flows. These entries are accessed by a hash key index that is generated by a hash function from packet header information . . .").

With respect to dependent claim 2, Li teaches **[t]he packet search device according to claim 1, wherein said first search processing means divides said packet header information into a plurality of information areas and searches across each search conditional statements structured as binary search trees for each of said information areas separately** (column 5, lines 54 – 57: "the choice of data structures (i.e. a link list or a binary tree or other structure) may depend on the particular design objective of the packet classifier.").

With respect to dependent claim 3, Li teaches **[t]he packet search device according to claim 2, wherein said second search processing means searches aggregated search results of said first search processing means using Hash method** (column 4, lines 9 – 13: "Cache 108 stores a hash table with entries filled by class of service identifiers (i.e. classIDs) for (generally) the most recently detected flows. These entries are accessed by a hash key index that is generated by a hash function from packet header information . . .").

With respect to dependent claim 4, Li teaches **[t]he packet search device according to claim 1, comprising a search database for managing each search result of said first and second search processing means for each of said information area** (column 4, lines 9 – 13: "Cache 108 stores a hash table with entries filled by class of service identifiers (i.e. classIDs) for (generally) the most recently detected flows. These entries are accessed by a hash key index that is generated by a

hash function from packet header information . . .").

With respect to dependent claim 5, Li teaches **[t]he packet search device according to claim 4, wherein said search database has a plurality of search keys** (column 4, lines 9 – 13: "Cache 108 stores a hash table with entries filled by class of service identifiers (i.e. classIDs) for (generally) the most recently detected flows. These entries are accessed by a hash key index that is generated by a hash function from packet header information . . .").

With respect to dependent claim 6, Li teaches **[t]he packet search device according to claim 3, wherein said second search processing means manages only combinations of search results** (column 4, lines 9 – 13: "Cache 108 stores a hash table with entries filled by class of service identifiers (i.e. classIDs) for (generally) the most recently detected flows. These entries are accessed by a hash key index that is generated by a hash function from packet header information . . .").

With respect to dependent claim 7, Li teaches **[t]he packet search device according to claim 1, wherein at least QoS (Qualityof Service) information and filter information are searched for based on said header information** (column 3, lines 55 – 60: "Memory 110 includes stored information about how different classes of network traffic are identified and how they are to be treated. Such information can include SLAs for DiffServ networks, and other filters and parameters for establishing

different levels of Quality or Class of Service for different flows of traffic.").

With respect to dependent claim 8, Li teaches **[t]he packet search device according to claim 1, wherein said packet search processing is performed at least in a router and a firewall** (column 3, lines 29 – 33: "FIG. 1 is a block diagram showing a classification architecture 100 in accordance with one example of the invention. Such an architecture can be provided in . . . an enterprise access/firewall router, a general Internet access router, etc.").

With respect to independent claim 9, Li discoses **[a] packet processing search method that searches for a packet filter for an inputted packet before performing packet processing** (column 2, lines 13 – 14: "The present invention relates to a method and apparatus for classifying data packets."), **comprising:**

a first step of searching for search conditional statements corresponding to a plurality of information areas included in header information of said packet with a first search method (column 3, last four lines: "flows of traffic requiring different service are identified by information that can be extracted from packet headers such as source and destination IP addresses, . . ."); **and**

a second step of searching the search results at said first step with a second search method that is different from said first search method (column 4, lines 9 – 13: "Cache 108 stores a hash table with entries filled by class of service identifiers (i.e. classIDs) for (generally) the most recently detected flows. These entries

are accessed by a hash key index that is generated by a hash function from packet header information . . .").

With respect to dependent claim 10, Li teaches **[t]he packet processing search method according to claim 9, wherein said first step divides said packet header information into a plurality of information areas and searches across each search conditional statements structured as binary search trees for each of said information areas separately** (column 5, lines 54 – 57: "the choice of data structures (i.e. a link list or a binary tree or other structure) may depend on the particular design objective of the packet classifier.").

With respect to dependent claim 11, Li teaches **[t]he packet processing search method according to claim 10, wherein said second step searches aggregated search results of said first step using Hash method** (column 4, lines 9 – 13: "Cache 108 stores a hash table with entries filled by class of service identifiers (i.e. classIDs) for (generally) the most recently detected flows. These entries are accessed by a hash key index that is generated by a hash function from packet header information . . .").

With respect to dependent claim 12, Li teaches **[t]he packet processing search method according to claim 9, wherein each search result at said first and second steps is managed for each of said information areas using a search database** (column 4, lines 9 – 13: "Cache 108 stores a hash table with entries filled by class of

service identifiers (i.e. classIDs) for (generally) the most recently detected flows. These entries are accessed by a hash key index that is generated by a hash function from packet header information . . .").

With respect to dependent claim 13, Li teaches **[t]he packet processing search method according to claim 12, wherein said search database has a plurality of search keys** (column 4, lines 9 – 13: "Cache 108 stores a hash table with entries filled by class of service identifiers (i.e. classIDs) for (generally) the most recently detected flows. These entries are accessed by a hash key index that is generated by a hash function from packet header information . . .").

With respect to dependent claim 14, Li teaches **[t]he packet processing search method according to claim 11, wherein said second step manages only combinations of search results** (column 4, lines 9 – 13: "Cache 108 stores a hash table with entries filled by class of service identifiers (i.e. classIDs) for (generally) the most recently detected flows. These entries are accessed by a hash key index that is generated by a hash function from packet header information . . .").

With respect to dependent claim 15, Li teaches **[t]he packet processing search method according to claim 9, wherein at least QoS (Qualityof Service) information and filter information are searched for based on header information in said packet** (column 3, lines 55 – 60: "Memory 110 includes stored information about how different

classes of network traffic are identified and how they are to be treated. Such information can include SLAs for DiffServ networks, and other filters and parameters for establishing different levels of Quality or Class of Service for different flows of traffic.").

With respect to dependent claim 16, Li teaches **[t]he packet processing search method according to claim 9, said packet search processing is performed at least in a router and a firewall** (column 3, lines 29 – 33: "FIG. 1 is a block diagram showing a classification architecture 100 in accordance with one example of the invention. Such an architecture can be provided in . . . an enterprise access/firewall router, a general Internet access router, etc.").

With respect to independent claim 17, Li discloses **[a] program for a packet processing search method that searches for a packet filter for an inputted packet before performing packet processing, causing a computer to execute** (column 10, lines 18 – 20: "the present invention can improve packet classification for long-lived flows such as streamed multimedia data, Web cache server based traffic, . . ."),

first processing that searches for search conditional statements corresponding to a plurality of information areas included in header information of said packet with a first search method (column 3, last four lines: "flows of traffic requiring different service are identified by information that can be extracted from packet headers such as source and destination IP addresses, . . ."); **and**

second processing that searches the search results of said first processing

with a second search method that is different from said first search method (column 4, lines 9 – 13: "Cache 108 stores a hash table with entries filled by class of service identifiers (i.e. classIDs) for (generally) the most recently detected flows. These entries are accessed by a hash key index that is generated by a hash function from packet header information . . .").

Conclusion

The examiner notes that the applicant's arguments that were presented have been carefully and respectfully considered by the examiner, but they are not persuasive. Accordingly, the Office Action has been made **FINAL**. See MPEP § 706.07(a). The applicants are reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Harold A. Hotelling whose telephone number is (571) 270-1293. The examiner can normally be reached between 7:00 a.m. - 5:30 p.m. Monday through Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Charles Rones, can be reached at (571) 272-4085. The fax phone number for the organization where this application or proceeding is assigned is (571) 270-2293.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Harold A. Hotelling
Examiner
Art Unit 2164

HAH
September 18, 2007

CHARLES RONES
SUPERVISORY PATENT EXAMINER